

IN THE DRAWINGS

The drawings are objected to because box No. 13 in Figures 1 and 5-8 should be labeled "Input Board".

Applicant respectfully submits herewith under separate cover five (5) sheets of replacement drawing to substitute for the originally filed drawing. Figures 1 and 5-8 have been amended to include the label "Input Board", as suggested by the Examiner in the Office Action.

REMARKS**Summary of the Office Action**

The abstract of the disclosure is objected to because it is over 150 words in length, not in a single paragraph, and contains legal phraseology.

The Office Action states that the drawings are objected to because element 13 in Figs. 1 and 5-8 should be labeled -- Input Board --.

Claims 1-4 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,839,581 to Peterson (“Peterson”) in view of U.S. Patent No. 4,386,315 to Young et al. (“Young”).

Claims 5-7 and 9-10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Peterson in view of Young, as applied to claims 1-5 above and further in view of U.S. Patent No. 5,915,150 to Kukimoto et al. (“Kukimoto”).

Summary of the Response to the Office Action

Claims 1-10 are presently pending for further consideration.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1-4 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Peterson in view of Young. Applicant respectfully traverses the rejection.

The Office Action alleges that Peterson has an opening portion and an insulative lid member. In particular, the Office Action alleges that enclosure A is the main body and that “[t]he lid member is where element 12 is inserted.” In fact, there is no opening nor insulative lid

member shown in either Figs. 1 or 2 of Peterson. Instead, the enclosure A in Fig. 1 "includes a flexible liner 10 which extends around an interior surface of the Faraday cage B and an exterior surface of the space charge density means E." (Peterson at col. 7, lines 63-67.) That there is no opening in the flexible liner 10 of Peterson is shown by the fact that as the piston 12 is moved inward, the liner 10 is stretched. (*Id.* at col. 8, line 7.) With no opening portion, there can also be no lid member to seal the opening portion as recited in claims 1 and 2.

The Office Action also alleges that Peterson has "a voltage sensor (14) disposed in said container in the way in which a lid member side is opposed to an electrically charged portion of an overhead wire line (12), insulated from the earth, and detecting a voltage that is induced in a plate electrode that is induced in a plate electrode due to a spatial charge between said electrically charged portion and the plate electrode within said container (A)." Applicants respectfully submit that this assertion mischaracterizes the nature of the Peterson device.

First, there is no mention of the device of Peterson being opposed to an electrically charged portion of an overhead wire. Contrary to the assertions of the Office Action, element 12 of Peterson is not an overhead wire, but is a piston used to change the volume of the interior of the flexible liner 10. (col. 7, lines 63-65.)

Second, elements B of Fig. 1 and 30 of Fig. 2 of Peterson are each described as a "Faraday cage." (col. 7, line 65; col. 9, lines 4-5.) Faraday cages are used to shield the components within from outside electromagnetic radiation. Indeed, Peterson explains with respect to Fig. 2 that "[a]n outer Faraday cage 35 shields (*sic*) the inner cage 30 and other components." (col. 9, lines 8-9.) Claims 1, 2, and 8 all recite that an electrode within the container detects voltage in an overhead wire by induction "due to a spatial charge between said

electrically charged portion and the plate electrode within said container." It is clear that the container of the Peterson device shields the electrode within from outside influence rather than using that electrode to measure voltage in an overhead wire as recited in claims 1, 2, and 8.

The Office Action further states that "Young discloses a system similar to that of Peterson . . ." However, the device of Young operates in a completely different way than the device of Peterson. As Young explains, "[t]he present invention is based upon the discovery that a bulb of dielectric material filled with a suitable gas and placed in a time varying electric field will emit pulses of electromagnetic radiation, the number of which is in proportion to the change in magnitude of an electric field." (col. 1, lines 36-41.) This is very different from either Peterson, which measures the potential of the interior of a container through an electrode, and the present invention, which uses electromagnetic induction in a conductor to measure voltage. Thus, a person of ordinary skill in the art of voltage detection would not be prompted to combine the devices of Peterson and Young – even if those references indeed included all features of the present invention.

It should also be noted that the problem with humidity referred to in Young is within the container, whereas the humidity referred to in the present invention is outside the container.

For at least the above reasons, Applicant respectfully requests that the rejection of claims 1-4 and 8 under 35 U.S.C. § 103(a) as being unpatentable over Peterson in view of Young be withdrawn.

Claims 5-7, 9, and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Peterson in view of Young, as applied to claims 1-5, and further in view of Kukimoto. Applicant respectfully traverses the rejection.

In addition to those claims being allowable because of their dependence from allowable claims, Applicant would point out that, as admitted in the Office Action, Kukimoto discloses using fluorine and silicone resins to prevent toner soiling, a problem not present in the present invention. Thus, there would be no reason for a person of ordinary skill in the art to combine Kukimoto with the other references to obtain the invention recited in claims 5-7 and 9.

Further, contrary to the assertions of the Office Action, there are no protruding ribs shown in Figs. 1 or 2 of Peterson – even if there were a lid member from which they would protrude. Thus, the cited references do not disclose the ribs recited in claims 7 and 10.

Similarly, contrary to the assertions of the Office Action, there is no peripheral edge extending outwardly from a joined portion (There is no joined portion for it to extend from, for one thing.) in Figs. 1 or 2 of Peterson as required by claim 6.

For at least these additional reasons, Applicant respectfully requests that the rejection of claims 5-7, 9, and 10 under 35 U.S.C. § 103(a) as being unpatentable over Peterson in view of Young be withdrawn.

Applicant respectfully asserts that independent claims 1, 2, and 8; and their dependent claims 3-7 and 9-10 are in condition for allowance.

CONCLUSION

It is respectfully submitted that all claims are now in condition for allowance, early notice of which would be appreciated. Should the Examiner disagree, Applicant respectfully requests a telephonic or in-person interview with the undersigned attorney to discuss any remaining issues and to expedite the eventual allowance of the claims.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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Dated: October 12, 2007

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